NPS Form 10-900 (Rev. 10-90)

United States Department of the Interior National Park Service

SENT TO D.C. 4-9-2002

NATIONAL REGISTER OF HISTORIC PLACES REGISTRATION FORM

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name Wooden Alley

other names/site number alley (roughly 1535 North) between Astor and State Streets

2. Location

street & number 1535 North between Astor and State Streets	not for publication
city or town <u>Chicago</u>	vicinity
state Illinois code _IL_ county Cook	code031
zip code <u>_60614</u>	

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act of 1986, as amended, I hereby certify that this ______ nomination ______ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60. In my opinion, the property _____ meets _____ does not meet the National Register Criteria. I recommend that this property be considered significant _____ nationally _____ statewide _____ locally.

(____ See continuation sheet for additional comments.)

Chh /Sitos

Signature of certifying official

3-20-02

Date

State or Federal agency and bureau

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In my opinion, the property meets does not (See continuation sheet for additional comments	t meet the National Register criteria. s.)
Signature of commenting or other official	Date
State or Federal agency and bureau	
4. National Park Service Certification	
I, hereby certify that this property is:	
entered in the National Register	
determined eligible for the National Register See continuation sheet.	
determined not eligible for the	
removed from the National Register	
other (explain):	

Signature of Keeper Date of Action

- 1

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5. Classification

Ownership of Property (Check as many boxes as apply)

- ____ private
- <u>X</u> public-local
- ____ public-State
- ____ public-Federal

Category of Property (Check only one box)

- ____ building(s)
- ____ district
- ____ site
- <u>X</u> structure
- ___ object

Number of Resources within Property

Contributing Noncontributing

0	0	_ buildings
0	0	sites
I	0	structures
	0	objects
_ <u>l</u>	0	Total

Number of contributing resources previously listed in the National Register _____

Name of related multiple property listing (Enter "N/A" if property is not part of a multiple property listing.)
N/A

6. Function or Use

Historic Functions (Enter categories from instructions)
Cat: <u>Transportation</u> Sub: <u>Road-related</u>
Current Functions (Enter categories from instructions)
Cat: <u>Transportation</u> Sub: <u>Road-related</u>

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7. Description

Architectural Classification (Enter categories from instructions)
Other: Wooden Block Paving
Other: Nicholsonesque Paving
Materials (Enter categories from instructions)

foundation	0	· · · · · ·
roof		
walls		

other <u>Cedar Block</u>

Narrative Description (Describe the historic and current condition of the property on one or more continuation sheets.)

See Continuation Sheet page numbers 8 and 9.

8. Statement of Significance

Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing)

A	Property is associated with events that have made a significant contribution to the broad patterns of our history.
B	Property is associated with the lives of persons significant in our past.
<u>X</u> C	Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
D	Property has yielded, or is likely to yield information important in prehistory or history.

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Criteria Considerations (Mark "X" in all the boxes that apply.) A owned by a religious institution or used for religious purposes. _____B removed from its original location. C a birthplace or a grave. D a cemetery. E a reconstructed building, object, or structure. F a commemorative property. G less than 50 years of age or achieved significance within the past 50 years. Areas of Significance (Enter categories from instructions) Engineering ____ _____ _____ Period of Significance _____1909 Significant Dates _____1909____ Significant Person (Complete if Criterion B is marked above) N/A_____ Cultural Affiliation N/A -----Architect/Builder _____Todd, Alexander, subcontractor

Narrative Statement of Significance (Explain the significance of the property on one or more continuation sheets.)

See Continuation Sheet pages 10 through 17.

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9. Major Bibliographical References

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

See Continuation Sheet page number 18.

Previous documentation on file (NPS)

- ____ preliminary determination of individual listing (36 CFR 67) has been requested.
- ____ previously listed in the National Register
- ____ previously determined eligible by the National Register
- designated a National Historic Landmark
- _____ recorded by Historic American Buildings Survey #______
- ____ recorded by Historic American Engineering Record # _____

Primary Location of Additional Data

- ____ State Historic Preservation Office
- ____ Other State agency
- ____ Federal agency
- <u>X</u> Local government
- ____ University
- ____ Other

Name of repository: _____ Department of Transportation, Bureau of Inspection

10. Geographical Data

Acreage of Property __less than one acre ____

UTM References (Place additional UTM references on a continuation sheet)

Verbal Boundary Description (Describe the boundaries of the property on a continuation sheet.)

Boundary Justification (Explain why the boundaries were selected on a continuation sheet.)

See Continuation Sheet page number 19.

11. Form Prepared By

name/title Madeleine Metzler	
organization Loyola University; Dept of History date November 10, 2001	
street & number1907 W. Ainslie, Apt. 3telephone_773-506-1292	
city or town Chicago state_IL_ zip code 60640	
Additional Documentation	_

Submit the following items with the completed form:

Continuation Sheets

Maps

A USGS map (7.5 or 15 minute series) indicating the property's location. A sketch map for historic districts and properties having large acreage or numerous resources.

Photographs

Representative black and white photographs of the property.

Additional items (Check with the SHPO or FPO for any additional items)

Property Owner

(Complete this item at the request of the SHPO or FPO.) name <u>City of Chicago</u> street & number <u>121 North LaSalle</u>, Room 507 telephone

city or town Chicago state IL zip code 60602

Paperwork Reduction Act Statement: This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 et seq.). Estimated Burden Statement: Public reporting burden for this form is estimated to average 18.1 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Project (1024-0018), Washington, DC 20503.

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NATIONAL REGISTER OF HISTORIC PLACES CONTINUATION SHEET

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Wooden Alley Cook County, Illinois

Description

The alley being nominated for the National Register is a one-block wooden alley that extends between Astor and State Streets in the 1500 North block (approximately 1535) in Chicago. The alley is eighteen feet wide, 919 square yards, and 530 lineal feet. Another alley (asphalt) meets the wooden alley in a perpendicular T-intersection at the midpoint of the wooden alley. At each end the alley is paved with asphalt extending approximately eight feet from the street into the alley. The rest of the alley is constructed of wood blocks that were treated with creosote. The blocks of wood are four inches thick, four inches wide and are 6, 8 or 10 inches in length. The blocks are laid in parallel lines across the width of the alley. There is no edging or curbing, the blocks directly abut the buildings on either side of the alley. Based on the research done, such paving was usually laid on a prepared roadbed, however it is impossible to determine the substructure of the alley. The lines of paving are laid with the blocks laid lengthwise end to end. There is no space between the lines of paving, but there are spaces (approximately one-quarter inch) between the ends of the blocks. These spaces are packed with loose material.

The alley is in good condition. There are several patches of asphalt laid in repair efforts, and several small areas where the blocks are in poor repair. Between the paving blocks and the coach house to the north there is one small gap that has allowed a few blocks to become loose. At the point of the intersection with the perpendicular alley the wooden paving has bowed somewhat. There are very few loose blocks,

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and generally the blocks are in very good condition with extremely little rotten or missing material. There are several sections in which the paving is in remarkably good condition, with even, unbowed paving made of solid blocks with no decay and tight seams.

The alley between State and Astor Streets was constructed between October 29 and November 23 of 1909, a year in which only eight of the alleys built that year were paved in wood. The alley is paved in cedar wood blocks that have been treated with creosote. The contractor who completed the sewer work was the KRQ Company and the subcontractor responsible for the paving of the alley was Alexander Todd. The cost of the paving was \$3343.96.¹

The alley is located in the National Register Gold Coast Historic District, which is roughly bounded by North Avenue, Lake Shore Drive, Clark and Oak Streets. It is also located in the locally landmarked Astor Street District. As such it is surrounded by an area that is comprised largely of buildings built during the same period that such paving predominated. The alley is bordered on the north side by the property of the Archdiocese of Chicago, which includes the Cardinal's Residence and a coach house that abuts the alley. The Cardinal's Residence immediately north of the alley was built in 1880. The alley is bordered on the south side by two private residences, one facing Astor Street and the other facing State Street; the house at 1525 North State Street was built in 1895. The Astor Street house (1525 North Astor) facing the entrance to the alley was built in 1916, while one of the houses facing the alley from State Street was built in 1896.

¹ Report of the Board of Local Improvements of the Citv of Chicago, 1905-1910. p. 190-191.

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Statement of Significance

The wooden alley (approximately 1535 North) between Astor and State Streets is eligible for inclusion on the National Register of Historic Places under criterion C, because it embodies "the distinctive characteristics of a type...of construction...." The alley qualifies under criterion C because it is a rare example of the technique of wooden street paving that was the predominant method of street paving in the Chicago in the second half of the nineteenth and early part of the twentieth centuries. There are only two known extant wooden alleys in the city, and the Astor and State Streets alley is a much better example of the form of street paving. The alley demonstrates the engineering significance of wooden paving as it relates to community planning, transportation, and to the city's physical growth and development in the second half of the nineteenth century. The period of significance is 1909 when the wooden alley was constructed.

Wooden Paving

Wooden paving demonstrates a significant stage in the development of streets and public works construction in the history of Chicago. Through many of its early years the city wrestled with the question of how to keep roads paved and in passable condition for the ever-increasing and sometimes heavy traffic that used the roads. As the city grew, both in population and market activity, the need for well-maintained, passable streets became crucial to the city's continued development. The city experimented (and, as every citizen who is familiar with the "pothole patrol" knows, continues to experiment) with different forms of inexpensive and yet durable paving. Wooden street paving dates back to 1849 with the planking of North Lake Street.²

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Planked streets were deemed an unsatisfactory solution to the transportation problem because of their impermanence and the cost of frequent repairs. The first use of wooden block paving was in July of 1856. Chicago was the first city of the west to use the newly developed "Nicholson paving."³

Nicholson paving was invented by Samuel Nicholson, a Boston builder, in 1848, and was seen as the ideal form of pavement for most fast-growing cities. Nicholson paving was desirable because it was reasonably affordable and durable. The process of road building using Nicholson pavement required a prepared roadbed upon which was placed one-inch thick plank "flooring," which was treated with hot tar. Six-inch tall blocks were laid on this roadbed with the rows of six-inch blocks separated three inch-high and one-inch wide spacers or "pickets." The space between the blocks created by the pickets was then filled with tar and gravel or cinders and tamped down.⁴ Nicholson Paving was a very popular form of paving in many U.S. cities; however, in 1867 the American Nicholson paving. The court ruled that the American Pavement Company owned the patented rights to the above mentioned process of paving and cities using this process infringed on that patent and were required to pay for the right to use the paving process.⁵ Chicago turned to alternative (but very similar) forms of wooden block paving,⁶ and in 1868 Boyinton Paving was introduced in Chicago. Boyinton paving was a variation of Nicholson paving which, because it used a slightly different floor and a combination of six- and seven-inch wooden blocks, did not infringe on Nicholson's

1905) 4.

³ Daphne Christiansen, ed., *Chicago Public Works: A History*, (Chicago: Department of Public Works 1973) 50.

⁴ City of Elizabeth v. American Nicholson Pavement Co., 97 U.S. 126, 24 L. Ed. 1000 (1877), 126. 5 Ibid, 130.

OMB No. 1024-0018

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patent and therefore did not incur patent right charges.⁷ Over the years different paving companies obtained contracts to pave the streets of Chicago using variations on the standard establish by Nicholson.

In 1871 the Chicago Fire burned much of the wooden infrastructure of the city, including its wooden streets. (In 1871, thirty-seven miles of the total sixty-one miles of "improved" streets were wooden.) A contemporary account of the catastrophe described the fire as having "fed on everything—the Nicholson pavement of the streets, the sidewalks, the fences...."⁸ "In some streets it burned the blocks of Nicholson pavement to the earth beneath them."⁹ However, the fire (and the flammable nature of the paving material) did not dampen the city's enthusiasm for wooden paving. In the 1872 <u>Annual Report of the Bureau of Public</u> Works the assessment of the fire damage stated, "The wooden block pavement, although considerably damaged on all the streets were it was laid, withstood the fire much better than was expected."¹⁰ In the years following the fire through the end of the century, wooden block pavement continued to be the preferred paving method and material. In 1881, of the twenty-six miles of streets paved that year almost nineteen (or 73 %) were paved in wooden blocks.¹¹ By 1891 seventy-four miles of the 118 miles paved that year were made of wooden block paving. Also in 1891, 481 (or 62%) of the 774 total miles of paved streets were wooden.¹²

In 1884, the Commissioner of Public Works included in the Annual Report a detailed argument

⁶ Department of Public Works, The 7th Annual Report of the Board of Public Works (Chicago: 1867) 16-17. 7 Christiansen, 50.

⁸ James W. Sheahan and George P. Upton, *The Great Conflagration* (Chicago: Union Publishing Company, 1872) 271.

⁹ Ibid, 100.

¹⁰ Department of Public Works, The 11th Annual Report of the Bureau of Public Works (Chicago, 1872) 100. 11 Department of Public Works, The 6th Annual Report of the Department of Public Works to the City Council of the City of Chicago (Chicago, 1882) 189-192.

¹² Department of Public Works, The 16th Annual Report of the Department of Public Works Works to the City

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explaining why the city should stop using wooden block paving. He included in his argument citations from other major U.S. and foreign cities that had switched to alternative forms of paving. He cited the durability of stone and the relative transience of wood; he quoted medical evidence on the unhygienic nature of wooden streets; he demonstrated the relative economy of the more expensive stone that was replaced less often with the cheaper wood that was replaced with greater frequency.¹³ In spite of his arguments, the city continued to use wooden paving blocks for almost four more decades.

Wooden block paving continued to be used for street paving, primarily due to the inexpensive cost of wood and the relative high cost of other paving materials. In 1872, wooden street paving cost \$.40 per foot while stone cost \$1.20 per foot.¹⁴ Granite paving was preferable because of its durability (stone paving was generally thought to last approximately thirty years), but it was criticized for its noisiness and cost. Macadamized paving and asphalt sheeting were also used in limited quantities. The cost of all of these alternative forms of paving exceeded wooden paving.

The Lumber Market

The reason wood was used for paving to such a great extent and for a longer period than other cities was because of the predominance of the lumber market in Chicago. The sheer size of the lumber market in Chicago meant that wood was readily available and reasonably inexpensive. The lumber market in Chicago, which began in 1836 with the first shipment from Michigan, was an integral aspect of the growth and development of

Council of the City of Chicago (Chicago: Cameron, Amberg & Co, 1892). 13 Department of Public Works, The Eighth Annual Report of the Department of Public Works to the City Council of the City of Chicago (Chicago: Cameron, Amberg & Co, 1884) 31-38.

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the city in the nineteenth century. The development of the wholesale market in Chicago reflects how husinesses were able to exploit the natural resources of the area to their economic advantage. In a very short time, the lumber market of Chicago quickly surpassed that of the older more established markets in the East. The extensive use of wooden street paving mirrors the growth of this market.

The great pine forests of the Lake States were a source of wood to the newly burgeoning Midwest. Towns and farms all over the prairie and plains regions needed wood to fuel their development. Chicago business, with its network of shipping and rail facilities and its already established markets in grain and meat, was well equipped to meet this need. The statistics regarding the Chicago lumber wholesale market are staggering. In a very short period of time, Chicago was shipping millions of feet in lumber each year. By 1879 the annual production in the Lake States was five billion feet of lumber, and in 1889, seven billion lumber feet were processed annually. A large portion of that lumber produced passed through the Chicago market.¹⁵ Hotchkiss, who wrote an extensive analysis of the lumber market, estimated that over 20,000 men were employed by the lumber industry and that close to three billion feet of lumber passed through the Chicago market in 1891.¹⁶ This lumber market was in part responsible for the fast growth of Chicago, not only financially but also physically. The lumber market, with technical advantages as balloon frame construction and improvements in sawmill technology,¹⁷ fostered the growth of the city. With such an immense supply of lumber readily available in the city throughout the year it is no wonder that the city relied heavily, and for a longer

14 The 11th Annual Report of the Bureau of Public Works, 7.

¹⁵ William Gerald Rector, Log Transportation in the Great Lakes Lumber Industry, 1840-1918 (California: Arthur H. Clark Co., 1953) 59.

¹⁶ George Hotchkiss, *History of the Lumber and Forest Industry of the Northwest* (Chicago: George W. Hotchkiss & Company, 1898) 685.

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period than other cities, on wood for its paving needs. The gradual replacement of wooden paving with other paving materials also reflects the decline of the Chicago lumber market. Lumber production peaked in the mid-1890s and declined rapidly after that and by 1900 most of the readily accessible pine resources had been exhausted. By 1909, the year the alley was built, only 2 billion feet of lumber was produced by the Lake States.¹⁸ Because of developments in the rail system and market distribution, by this time Chicago had lost its clutch hold on the lumber market.¹⁹ and a smaller proportion of that lower production moved through Chicago. Consequently, as lumber resources became more limited and therefore more expensive, the city shifted to new paving materials.

The Cost of Paving

Coupled with the decline in the lumber market, a change in state legislation influenced changes in street paving. The cost of paving streets was borne by the adjacent landowners, since it was these property owners who primarily benefited from the street improvement. The cost of improvements was passed on to the property owners through a special tax assessment. Property owners had been required to pay this special assessment in the year of the improvements; however, in 1889, state legislation was enacted that allowed property owners to pay such special assessments over a period of five years instead of just the one year previously. Once property owners could extend the payments over a longer period of time, they were more willing to take on the added

¹⁷ Rector, 57.

¹⁸ Ibid, 59-61.

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expense of the more costly paving materials.²⁰ The decline in the Chicago lumber market coupled with this change to the tax assessment policies, led to a decrease in the use of wood for street paving. By 1900 only 15% of the paving completed, and most of that alleys, was wooden. By 1905 no new street paving was wooden and very few alleys continued to be paved in wooden blocks. Wooden streets continued to be repaired in wood until approximately 1934, a year in which only 400 yards of creosote blocks were used. In 1934, the cost of Creosote blocks was \$1.64 as compared to asphalt patching, which cost \$1.42 per yard.²¹

Integrity

It is fortunate that this alley is in exemplary condition. It has been patched in a few places with asphalt paving, but vast majority of the alley is intact. Most of the blocks are in good (and in some places particularly fine) condition. The one other known wooden alley in Chicago is in much poorer condition. That alley, at approximately 2150 North Hudson Street, is a much smaller expanse of wooden paving, only approximately 100 feet long. Most of its blocks are significantly decayed and several larger portions of alley have been paved over with asphalt. Therefore because of the physical integrity, the wooden alley between Astor and State Streets is the best example of what had been a predominant form of street construction in Chicago.

The Astor and State Streets alley is also situated in the National Register Gold Coast Historical District and local landmarked Astor Street District, a setting which contributes to integrity of the alley by conveying the cultural context in which the type of street paving took place. The Cardinal's Residence immediately to the

19 Cronon, William., Nature's Metropolis: Chicago and the Great West (New York: W. W. Norton, 1991) 184.
20 Matousek, 14.
21 Fifty-Ninth Annual Report of the Department of Public Works (Chicago, 1934) 389-392.

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north of the alley was one of the earliest houses built in this district in 1880. The house on Astor Street facing the alley was built in 1916, only a few years after the alley was built. The house on State Street abutting the alley was built in 1895. Overall, 70% of the houses on Astor Street were built between 1880 and 1916.²² This setting of a rapidly growing, urban neighborhood conveys visually the context in which the city struggled to meet the public works needs of its rapidly expanding population, which demanded, among other public works, good streets.

Conclusion

The wooden alley between Astor and State Streets is was one of the final alleys paved in Nicholsonesque wooden pavement. It represents important developments in city planning and transportation through the city's continuous efforts to upgrade, improve, and maintain its streets and alleys. It demonstrates the evolution and experimentation of street pavement and engineering, as different contractors and engineers built streets. Where once it was the primary form of pavement construction, in the year this alley was constructed, 1909, only eight alleys of the alleys built that year were paved with wood. The alley is an example of the long-term and widespread use of wood in construction and therefore illustrates the importance of the lumber industry to the physical development of the city. It represents a facet of the public works system and a style of pavement that had been used extensively for over half of a century and was at that point almost extinct.

²² Commission on Chicago Historical and Architectural Landmarks, "Preliminary Summary of Information on an Astor Street District." (Chicago: 1973) 10 and 14.

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Selected Bibliography

Christiansen, Daphne, ed. Chicago Public Works: A History. Chicago: Department of Public Works, 1973, pp. 46-54.

Cronon, William. Nature's Metropolis: Chicago and the Great West. New York: W. W. Norton, 1991, pp. 146-208.

Department of Public Works. The Annual Report of the Bureau of Public Works to the City Council of Chicago. Chicago: 1867-1934.

Department of Planning and Development. Chicago Historic Resources Survey. Chicago: 1996.

Fox, E. A. "The Wooden Pavements of Chicago." Chicago: J. S. Thompson & Co., 1878.

Hotchkiss, George. *History of the Lumber and Forest Industry of the Northwest*. Chicago: George W. Hotchkiss & Company, 1898, pp. 661-685.

Kohlmeyer, Fred. *Timber Roots: the Laird Norton Story, 1855-1905.* Winona, MN: Winona County Historical Society, 1972.

Matousek, Joseph. "History of the Development of Chicago Pavements." B. S. thesis, University of Illinois, 1905.

Mohler, Charles. Report of the Creosoted Wood Block Paving in the Central Business District of Chicago. Chicago, IL: Loop Protective and Improvement Association. 1911.

Perkins, A. H. "Information on Pavements." Chicago: Western Paving and Supply Co., 1889.

Rector, William Gerald. Log Transportation in the Lake States Lumber Industry, 1840-1918. California: Arthur H. Clark Company, 1953.

Sheahan, James W. and George P. Upton. *The Great Conflagration*. Chicago: Union Publishing Company, 1872.

Tillotson, George. Street Pavements and Paving Materials, A Manual of City Pavements: The Methods and Materials of their Construction. New York City, NY: J. Wiley and Sons, 1990.

Vogel, John N. Great Lakes Lumber on the Great Plains. Iowa City: University of Iowa Press, 1992.

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"A Description of the DeGolyer Patent for Wood Pavement." Chicago: Pigott, Webster & Co., 1871.

Report of the Board of Local Improvements, 1905-1910. Chicago: 1910.

Wooden Pavements and their Utility in the Streets of Large Cities. Chicago: Northwestern Stafford Paving Co, 1869.

City of Elizabeth v. American Nicholson Pavement Co., 97 U.S. 126, 24 L. Ed. 1000 (1877)

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Wooden Alley Cook County, Illinois

Verbal Boundary Description

The wooden alley being nominated is between Astor and State streets, in the 1500 north block of Chicago (approximately 1535 North). It is 534 lineal feet, eighteen feet wide, and 919 square yards.

Boundary Justification

These boundaries reflect the full extent of the existing structure. This structure is on public land owned by the City of Chicago. It is surrounded by private property not included in the site nomination.